

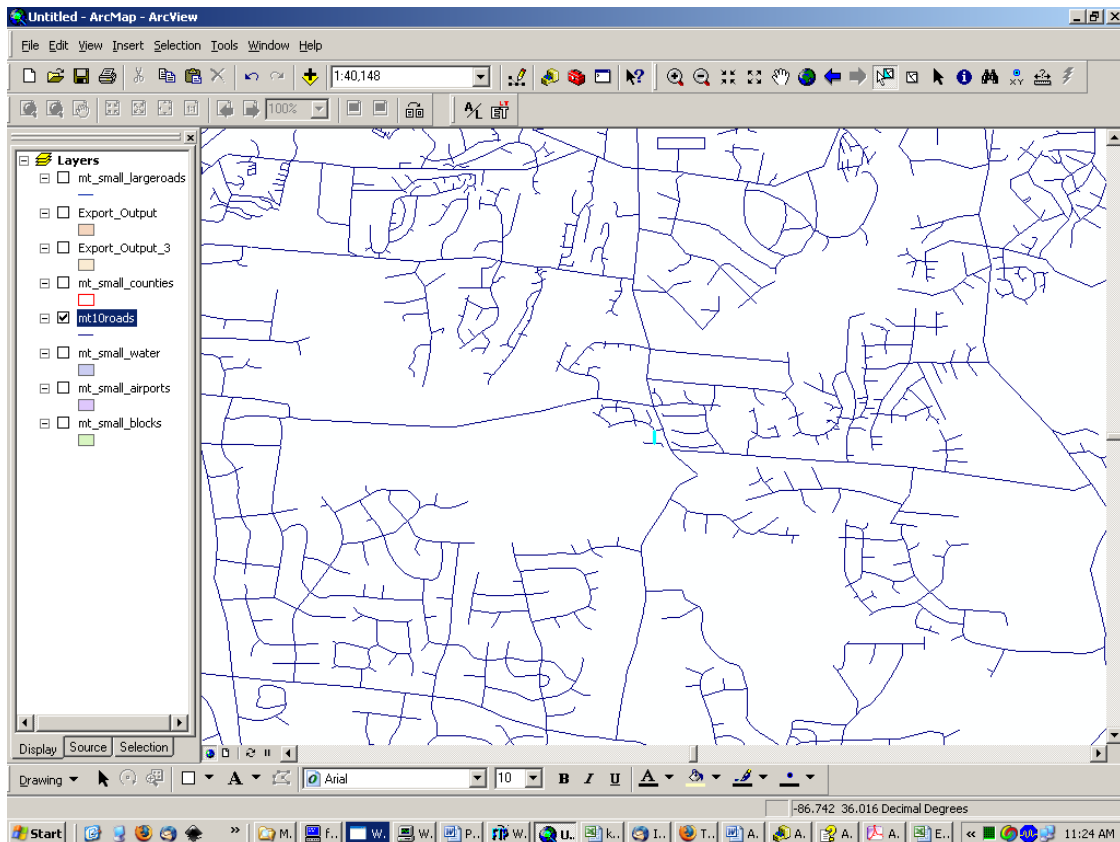
Finding market area characteristics for a business in the Nashville area.

Open ArcGIS. Click on the '+' icon to bring in the following layers from *S:\teff\450\arcview\mt_small_blocks.shp*, *mt_small_water.shp*, *mt_small_counties.shp*, *mt_small_airports.shp*, and *mt_small_largeroads.shp*. Then, bring in the layer *mt10roads.shp* from the directory *S:\teff\450\arcview\MT10roads*. Copy *mt10roads.shp* and *mt_small_blocks.shp* to your "My Documents" directory.

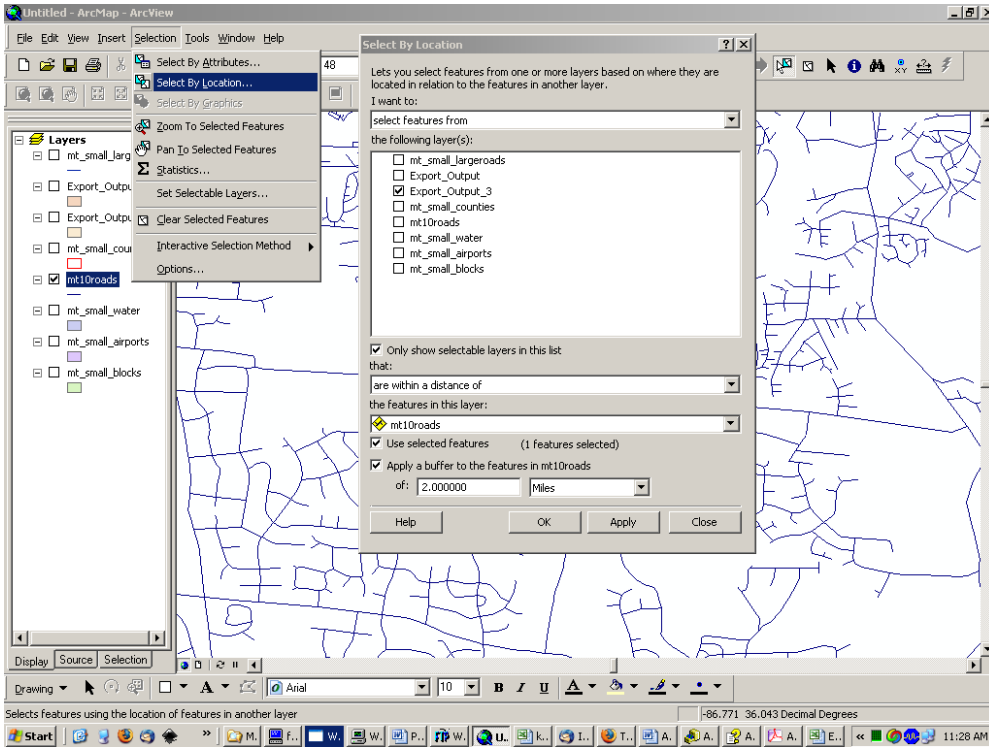
Your task is to produce one or two maps, as well as one or two tables or charts, that will make up part of a business plan that you intend to present to a banker. In the maps you need to show the market area for your business, and in the tables you need to show figures for the number of persons or households in the relevant demographic for your market area. Since you need to convince the banker to lend you money, you will do your best to prepare meaningful maps and tables.

First, identify the location for your proposed business, using the street data (the file you created from *mt10roads.shp*). Zoom in close enough to see the location and some of the surrounding streets. Next, click on the icon for "select features" (a white arrow next to a rectangle half-white and half-blue). Then click on the street in front of your proposed location. That segment of street should now be bright blue. If other layers have also turned blue, right click on them in the Table of Contents, click "Selection", and then click "Clear Selected Features".

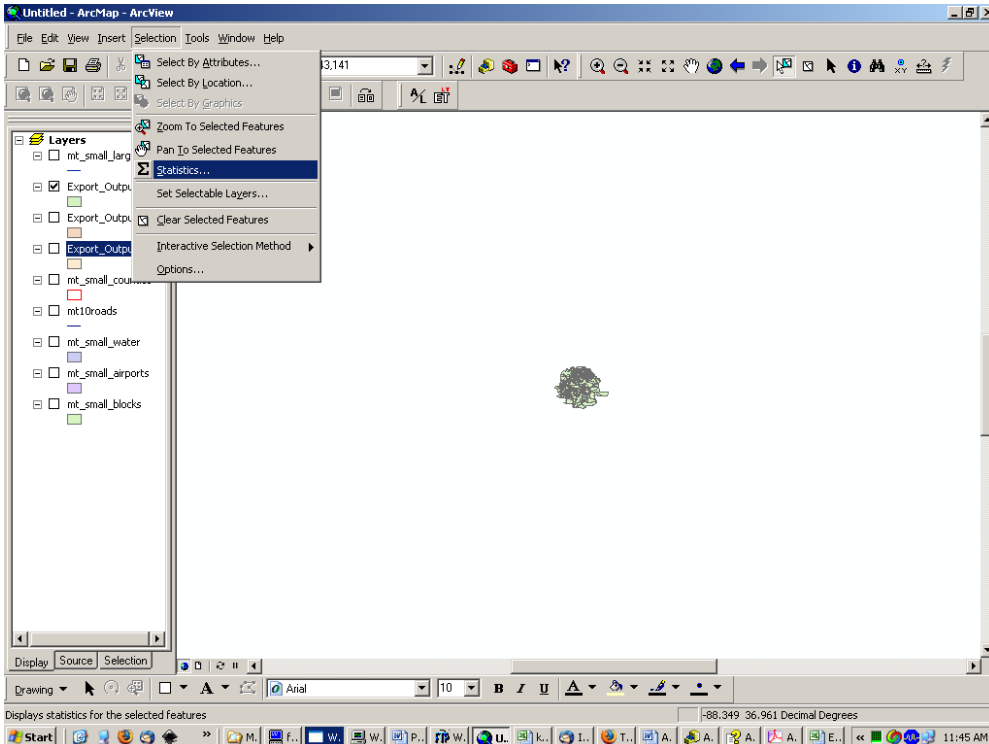
Click on "View" on the top menu, then click on "Data Frame Properties" at the bottom of the drop-down box. A dialog box appears: in the box for "Map", enter "Decimal Degrees"; in the box for "Display", enter "Miles". Click "OK".



Now, go to "Selection" on the top menu bar, and click "select by location" in the drop-down menu.

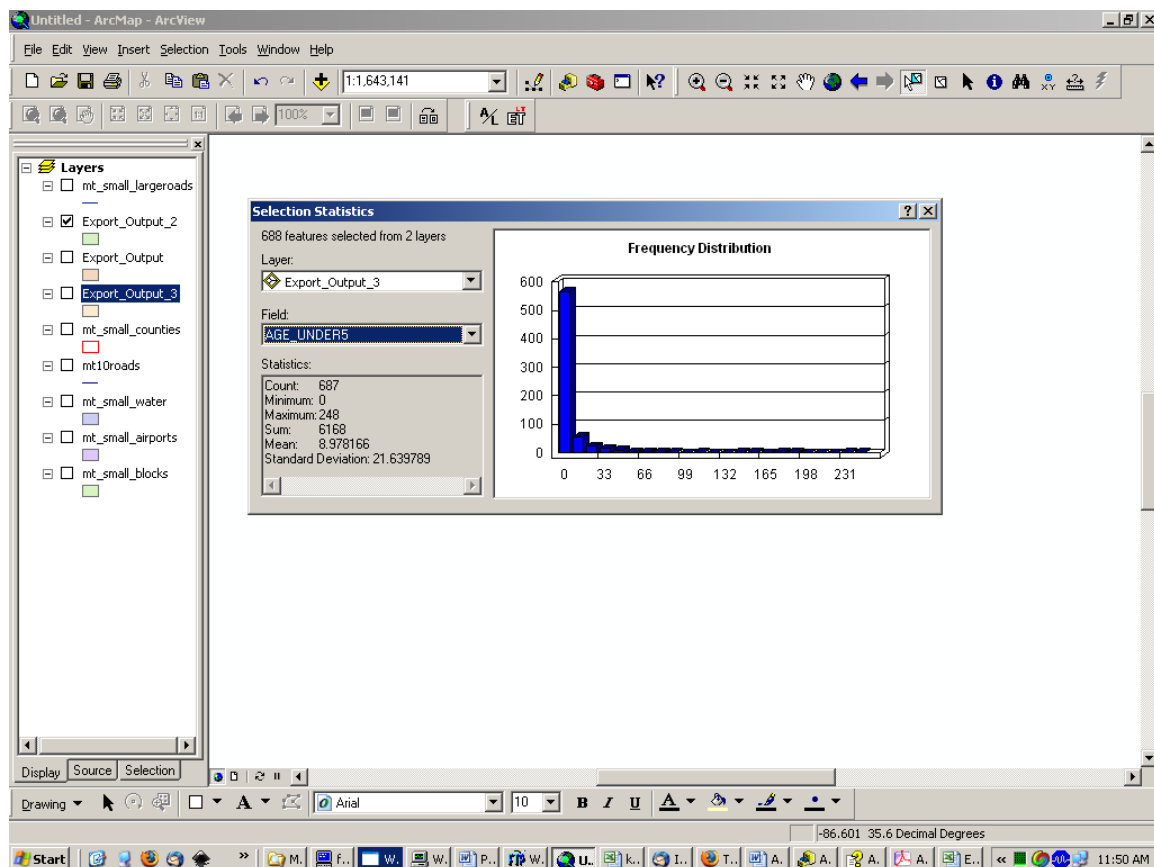


In the dialog box that appears, the first drop-down box should say “select features from”, and in the second box you should click the layer you made from *mt_small_blocks.shp*. The third box should say “are within distance of” and the fourth should have the name of the street map layer containing your selected street segment. Make sure that the box for “Use selected features” is clicked, and place a radius that you think is reasonable for your market area for the buffer distance.



Now click again on “Selection” on the top menu bar and click “Statistics” on the drop down menu. A new dialog box appears, that will allow you to learn some statistics about the area you just selected.

An important rule about tables is that all the information should be relevant and meaningful. For example, the *Mean* value for *AGE_UNDER5* in the figure below is not meaningful—the figure just tells one the average number of children per census block in the area, which will not correlate well with expected revenue. The *Sum* figure, on the other hand, is relevant, since it tells the total number of children within the selected area—a figure that is likely to correspond well with expected sales (at least for a retail business selling goods for children).



Assignment for next Monday. This assignment is *individual* work, not group work. Prepare a one page proposal for a new business—make copies (20) to hand out to the class. You will have about five minutes to make a pitch to the class for your business. Use ArcGIS to show the exact location of your business and to produce some information about its market area. You should also try to find some other information. For example, traffic count data can be found at

<http://www.tdot.state.tn.us/TrafficHistory/>

At the end of class, we will vote to select the winning proposal.